

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Improving Public Safety Communications in the)	
800 MHz Band)	
)	
Consolidating the 900 MHz Industrial/Land)	WT Docket No. 02-55
Transportation and Business Pool Channels)	

**FURTHER COMMENTS OF THE
CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION**

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& INTERNET ASSOCIATION**

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September 23, 2002

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SUMMARY

The wireless industry remains committed to working with Public Safety and the other licensees in the 800 MHz band to address the ultimate goal of this proceeding -- resolution of interference problems. However, CTIA cannot support the plan filed by the "Joint Commenters."¹ Indeed, CTIA objects to labeling this proposal a "consensus plan," because many of the parties that have a significant interest in this proceeding do not agree with the plan, were not involved in its development, and believe that an alternative solution to address the problem of interference into Public Safety operations in the 800 MHz band is warranted.

CTIA opposes the Joint Commenters' plan as strongly as it opposed Nextel's original band restructuring proposal. The Joint Commenters' plan is deficient in that it fails to provide a long-term solution to the interference problem, creates an unfair advantage for some existing licensees within the 800 MHz band, does not provide a solution for fully funding relocation of incumbents, and fails to provide Public Safety with upgraded communications capability.

These deficiencies provide ample grounds for the Commission to reject the Joint Commenters' plan. There are sufficient alternatives in the record that do not suffer from the same deficiencies as the Joint Commenters' plan, including a proposal by CTIA, that would provide a better solution. CTIA submits that the Commission should adopt its alternative approach that incorporates three broad proposals for mitigating interference: 1) relocation of 800 MHz Public Safety/Critical Infrastructure users to the 700 MHz band; 2) interim rebanding within the 800 MHz band, and 3) improved Public Safety equipment and interference mitigation efforts.

¹ See Reply Comments filed by Aeronautical Radio, Inc., et al, *In re Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, *Notice of Proposed Rulemaking*, (August 7, 2002) ("*Joint Comments*").

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**FURTHER COMMENTS OF THE
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The Cellular Telecommunications & Internet Association (“CTIA”)² hereby submits its Further Comments in response to the Commission’s *Public Notice* (“PN”)³ seeking comment on the plan jointly filed by seventeen parties (the “Joint Commenters’ plan”) “proposing certain revisions to the 700 MHz, 800 MHz, and 1900 MHz Bands.”⁴ CTIA objects to labeling this proposal a “consensus plan,” as the Joint Commenters have suggested. Many of the parties that have a significant interest in this proceeding do not agree with the plan, were not involved in its development, and believe that an alternative solution to address the problem of interference into Public Safety operations in the 800 MHz band is warranted. The wireless industry remains committed to working with Public Safety and the other licensees in the 800 MHz band to address the ultimate goal of this proceeding -- resolution of interference problems.

² CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the association covers all Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, broadband PCS, ESMR, as well as providers and manufacturers of wireless data services and products.

³ *Wireless Telecommunications Bureau Seeks Comment on “Consensus Plan” Filed in the 800 MHz Public Safety Interference Proceeding*, DA 02-2202 (rel. September 6, 2002) (“PN”).

⁴ *Id.*

I. Introduction

In its initial Comments and Reply Comments, CTIA opposed Nextel's original band restructuring proposal⁵ and presented an alternative approach that would significantly improve Public Safety communications in the 800 MHz band.⁶ CTIA opposes the Joint Commenters' plan as strongly as it opposed Nextel's band restructuring proposal, for many of the same, and several additional, reasons. The Joint Commenters' plan is deficient in that it fails to provide a long-term solution to the interference problem, creates an unfair advantage for some existing licensees within the 800 MHz band, does not provide a solution for fully funding relocation of incumbents, and fails to provide Public Safety with upgraded equipment. There are sufficient alternatives in the record that do not suffer from the same deficiencies as the Joint Commenters' plan, including a proposal by CTIA, that would provide better solutions to the issues currently being considered by the Commission.

II. CTIA's Plan to Relocate Public Safety/Critical Infrastructure Licensees From The 800 MHz To The 700 MHz Band Is The Best Means Of Resolving Interference Concerns And Achieving A Successful Long-term Critical Infrastructure Plan

In its Comments and Reply Comments, CTIA recommended several concrete steps to resolve the 800 MHz band interference problem.⁷ CTIA's alternative to Nextel's original plan and to the Joint Commenters' plan calls for three broad proposals for mitigating interference: (1)

⁵ See *Promoting Public Safety Communications – Realigning the 800 MHz Land Mobile Radio Band to Rectify Commercial Mobile Radio – Public Safety Interference and Allocate Additional Spectrum to Meet Critical Public Safety Needs* ("Nextel Proposal") (Nov. 21, 2001).

⁶ See *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Comments of the Cellular Telecommunications & Internet Association, filed May 6, 2002, at 4-6 ("CTIA Comments"), Reply Comments of the Cellular Telecommunications & Internet Association, filed August 7, 2002, at 4-6 ("CTIA Reply Comments").

⁷ See *CTIA Comments*, at 6-7.

Relocation of Public Safety/Critical Infrastructure licensees from the 800 MHz to the 700 MHz band; (2) Interim rebanding of the 800 MHz band to help alleviate interference concerns prior to relocation of Public Safety to the 700 MHz Band; and (3) Improved Public Safety equipment to complement and augment interference mitigation efforts.

CTIA's plan, as detailed in its Reply Comments,⁸ provides the best opportunity to resolve interference concerns and at the same time achieve a successful long-term Critical Infrastructure Plan. Moreover, the initiatives suggested by CTIA and others to improve Public Safety equipment and engage in interference mitigation efforts will benefit Public Safety communication operations in both the short and long run.

III. The Joint Commenters' Plan Is Deficient And Should Not Be Implemented By The Commission

A. The Joint Commenters' plan fails to provide a long-term solution for solving the Public Safety interference problem

The Joint Commenters' plan to reband 800 MHz is insufficient. Unlike the CTIA plan, which ultimately moves Public Safety to the 700 MHz band, the Joint Commenters' plan does not provide Public Safety with spectrum in which it can operate in an environment where it is free from CMRS interference. Instead, the plan proposes to relocate Public Safety and the majority of 800 MHz licensees within the 800 MHz band, while granting Nextel 10 MHz in an entirely separate band. This move benefits Nextel, but fails to completely address the core issue in this proceeding – interference. In fact, throughout the plan, the Joint Commenters discuss the continued remediation that will have to take place even *after* their plan is *fully* implemented.⁹

⁸ See *CTIA Reply Comments*, at 6-7.

⁹ See *Joint Comments* at 15 (stating that “Nextel and other CMRS licensees would continue to mitigate any incidence of CMRS-Public Safety interference . . . throughout the retuning process and *thereafter*.” (emphasis added)); see also *Joint Comments* at 21 (stating that

While CTIA agrees that some rebanding of 800 MHz may make sense, it submits that any rebanding should only be an interim step, while the Commission and Congress undertake efforts to reallocate spectrum in the 700 MHz band and provide for the orderly relocation of Public Safety incumbents.¹⁰ Specifically, CTIA recommended in its Reply Comments “that limited rebanding of the 800 MHz band could be appropriate if: (1) it can be demonstrated that the rebanding will significantly reduce harmful interference; (2) the Commission makes every effort to minimize the costs of such rebanding, including examining the use of upgraded, dual-band equipment for Public Safety; and (3) no CMRS carrier is *required* to contribute to the cost of rebanding.”¹¹ Such a step must be both cost effective and interim in nature.

As CTIA explained in its Reply Comments, interim rebanding of the 800 MHz band, *combined with* longer-term relocation to the 700 MHz band, could be cost-efficient if Public Safety were to consider the use of upgraded, dual-band equipment for Public Safety.¹² The Joint Commenters have raised concerns about this approach, stating that “PWC members have been informed that the wide ‘front-end’ required of such radios would not be conducive to the resolution of interference and would not be achievable in a reasonably-sized unit.”¹³ However, Motorola explained in its comments that when its dual-band radio “is tuned for frequencies in the

“interference will be mitigated in the *vast majority* of cases in the 800 MHz band [and that] relocating NPSPAC licensees . . . will *significantly lower* the probability that intermodulation products . . . will cause interference to public safety radio systems.” (emphasis added)).

¹⁰ See *CTIA Reply Comments* at 6. (“CTIA acknowledges that the Commission currently does not have the statutory authority to reallocate spectrum in the 700 MHz band, and obtaining such authority will require a concerted joint effort by both the industry and the Public Safety community. CTIA would actively support Federal legislation to enable the Commission to reallocate *and* clear spectrum in the 700 MHz band, provided that the spectrum is specifically set aside as a relocation band for Public Safety/Critical Infrastructure uses.”).

¹¹ *CTIA Reply Comments* at 7.

¹² *Id.*

¹³ *Joint Comments* at 7, note 25.

700 MHz band, it will filter out undesired signal energy being transmitted from stations in 851-869 MHz.”¹⁴

B. The Joint Commenters’ plan creates an unfair advantage for some existing licensees within the 800 MHz band

CTIA opposes the proposal to give Nextel 10 MHz of contiguous spectrum outside of the 800 MHz band. CTIA has argued throughout this proceeding that commercial licensees in the 800 MHz band, including Nextel, should not receive additional spectrum inside or outside of the 800 MHz band without having to pay for such spectrum through the auction process. The Commission must maintain the integrity of its auction and spectrum allocation processes throughout this proceeding.

The Joint Commenters argue that “to satisfy the public interest using the industry-wide Consensus Plan, Nextel would lose approximately 10.5 MHz of spectrum [and that] Nextel must be made whole through an alternative spectrum allocation of 10 MHz at 1910-1915/1990-1995.”¹⁵ Under the Joint Commenters’ plan, however, Nextel’s position is significantly improved compared to the status quo – it is made far more than “whole.” Not only does Nextel receive 10 MHz of *contiguous* spectrum in return for the scattered slices of spectrum that it returns, but also Nextel receives compensatory spectrum in a band that is adjacent to the top of

¹⁴ See *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, *Reply Comments of Motorola, Inc.* filed August 7, 2002, at 21, note 29. (Contrary to the Joint Commenters’ statement that “PWC members have been informed that the wide ‘front-end’ required of such radios would not be conducive to the resolution of interference and would not be achievable in a reasonably-sized unit,” Motorola explained in its Reply Comments that “these dual-band radios do not have front-ends that cover 764-869 MHz as a contiguous block. Rather, these radios typically employ ceramic variable-tuned filters that allow the front-end filters to move across the 764-869 MHz band depending on the desired signal frequency. The variable-tuned filter has the same “passband” as the fixed filter used for 800 MHz-only radios. Thus, when the radio is tuned for frequencies in the 700 MHz band, it will filter out undesired signal energy being transmitted from stations in 851-869 MHz.”).

¹⁵ *Joint Comments* at 18-19.

the existing PCS band.¹⁶ Other carriers paid on average close to \$1.3 billion for 10 MHz (2x5 MHz) of comparable spectrum band in the 1994 A and B block auction. Moreover, their extensive investments in this band would guarantee Nextel would benefit from enormous economies of scale if it sought to deploy equipment in this spectrum.

In addition to creating an unfair competitive advantage for Nextel, the spectrum that Nextel would receive under the Joint Commenters' plan is related to multiple FCC proceedings affecting advanced mobile services and mobile satellite service. As a legal matter, any spectrum that is made available for a mobile commercial service in these bands would be subject to Section 309 of the Communications Act, and must be auctioned if multiple, mutually exclusive applicants are interested in bidding. Accordingly, CTIA opposes any plan to give Nextel spectrum outside of the 800 MHz band. Instead, CTIA believes that the record contains several viable proposals for accommodating commercial licensees within the 800 MHz band, and the Commission should focus its attention on these proposals instead of the controversial and legally questionable proposal proffered by the Joint Commenters.

C. The Joint Commenters' plan does not provide a solution for fully funding relocation of incumbents

The Joint Commenters' Plan fails to adequately address the most daunting challenge to resolving the interference problems in the 800 MHz band -- determining how the cost of any transition would be funded. The plan does not detail from where funding will come, apart from Nextel's pledge of \$500 million. In fact, with regard to the transition of any private wireless entities, Joint Commenters state that "the parties have no formal plan at this time"¹⁷

¹⁶ Of the 10 MHz that Nextel would receive under the Joint Commenters' Plan, 5 MHz would come from Unlicensed PCS at 1910-1915 MHz and the other 5 MHz would come from MSS allocations at 1990-1995 MHz.

¹⁷ *Joint Comments* at 19.

Additionally, the Joint Commenters' plan states that "if Nextel is the sole funding source and the \$500 million is exhausted before the completion of retuning in every Region, Nextel has complete discretion as to whether to provide additional funding."¹⁸

The record in this proceeding establishes that the lack of a mechanism to fund relocation is a major deficiency in any plan. As CTIA identified in its Reply Comments, several commenters representing public safety organizations express concern about the costs associated with any relocation, and oppose any efforts to impose such costs on Public Safety.¹⁹ Similarly, CTIA and other industry commenters oppose any approach that imposes involuntary costs on CMRS carriers and their customers, as they would not be directly involved in the process.²⁰ In its comments, CTIA proposed that, to the extent the costs associated with the funding of any interim rebanding exceed the \$500 million already offered by Nextel, the remainder should be funded through public funds or through some other approach that does not impose involuntary costs on wireless carriers and subscribers.²¹

Unlike the Joint Commenters' Plan, CTIA and other commenters proposed a viable and comprehensive funding mechanism to cover the long-term costs of Public Safety relocations and upgraded equipment. The approach CTIA advocated in its Reply Comments was that any

¹⁸ *Joint Comments* at 20.

¹⁹ *See CTIA Reply Comments* at 2, Note 5, (citing Comments of the City of New York, at 2-3; OCTO Comments, at 4-6; Arizona DPS Comments, at 4; Comments of the Public Safety Improvement Coalition ("PSIC Comments"), at 3, 5; Comments of New Jersey Transit, at 2; Comments of the City of Baltimore, at 1; Comments of the Michigan State Police Communications Division, at 1-2; Comments of the San Diego County-Imperial County Regional Communications Systems, at 3; Bergen County Police Department Comments, at 6-7; State of Hawaii Comments, at 1; Comments of the County of Maui, at 6; IAFC/IMSA Comments, at 5; TRW-Ohio MARCS Comments, at 9; Comments of Utah Communications Agency Network, at 3, 4; Comments of Madison County East Transit District, at 7.).

²⁰ *See CTIA Comments* at 2, 6, 8-9; Verizon Wireless Comments, at 2, 12-17; U.S. Cellular Comments, at 6-7; Southern Comments, at 14-22; Joint Comments of Cingular Wireless and ALLTEL, at 14-15; Motient Comments, at 9-11.

²¹ *See CTIA Comments* at 2.

spectrum vacated by Public Safety and B/ILT in the 800 MHz band should be auctioned, and the proceeds used to fund Public Safety and B/ILT relocation to 700 MHz, where they could deploy a state-of-the-art wireless emergency network in that band. This approach will ensure that the steps necessary to resolve Public Safety interference problems and provide upgraded performance are fully funded.

D. The Joint Commenters' plan fails to provide Public Safety with any upgraded communications capability

The focus of this proceeding should be on improving the functionality of Public Safety communications, with the end result being the elimination of interference and the upgrade of their equipment. Any plan instituted by the Commission must provide a reasonable balance between Public Safety needs and efficient spectrum management. Measures taken to upgrade Public Safety users as they are relocated can fulfill Public Safety's responsibility to be spectrum efficient while at the same time improve the performance, reliability and security of Public Safety networks.

The Joint Commenters' plan does not preserve the balance between Public safety needs and efficient spectrum management. It fails to fully address Public Safety's long-term need for an interference-free environment, and equally important, it fails to take advantage of an opportunity to upgrade Public Safety equipment in a way that would both help to address interference concerns, while at the same time improving Public Safety operational capabilities.²²

²² In fact, the Joint Commenters' plan states that "to qualify for reimbursement, a public safety entity will adhere to the following principles: (1) all equipment that can be retuned must be retuned, *rather than replaced*; (2) provide the Public Safety Organizations and Nextel with the actual costs of retuning, whether performed by the public safety entity itself, a public safety contractor of Nextel; and (3) purchase, if necessary, *the same or equivalent equipment*; equipment or system *enhancements are at the expense of the public safety entity.*" *Joint Comments* at 21 (emphasis added).

As part of its plan, CTIA has argued that it is essential that Public Safety equipment be upgraded. As detailed in the Reply Comments, CTIA convened a group of technical experts from several of its member companies to develop mitigation strategies that would assist Public Safety as well as industry in addressing Public Safety interference issues.²³ These experts made several specific recommendations, including that the Commission initiate improvements in Public Safety handsets by adopting more rigorous testing standards for Public Safety equipment, and require Public Safety to adopt more robust systems designs that take into consideration redundancy and margin of safety.

CTIA believes that upgraded Public Safety communications equipment is a necessity, particularly in a post-September 11th environment. The benefits of upgrading Public Safety equipment are multiple. For example, CTIA, in its Reply Comments, highlighted that the “overwhelming majority of Public Safety and B/ILT networks are analog networks, and interception of these NS/EP communications can be readily accomplished with inexpensive, commercially available scanners.”²⁴ In addition to addressing interference issues, migrating Public Safety into a digital environment as part of any relocation would enhance Public Safety network security. Any plan to address interference in the 800 MHz band should also include a provision to address the upgrade of Public Safety equipment. As stated above, CTIA’s plan – unlike the plan filed by Joint Commenters -- provides a mechanism for *fully* funding such an upgrade of Public Safety equipment.

²³ See *CTIA Reply Comments* at 8-12.

²⁴ See *id.* at 5.

IV. The Commission Should Work With *All* Affected Parties to Implement Both Immediate and Long-term Solutions to Public Safety Interference Problems.

CTIA takes exception to the Joint Commenters' suggestion to the Commission "to direct Nextel, the LMCC, and the RPCs to work together to complete, by a date certain, a comprehensive bandplan for the new public safety/business/industrial land transportation pool, and the reallocated 700 MHz and 900 MHz channels"²⁵ Just as calling the Joint Commenters' plan a "Consensus Plan" is a misnomer because it does not include all of the parties affected by this proceeding, calling on only "Nextel, the LMCC, and the RPCs" to develop a "comprehensive bandplan" also makes no sense. Any working groups on this issue should involve *all* affected parties, including those from the CMRS industry that have been involved in this proceeding from its inception.

With regard to an immediate, short-term solution to mitigate interference to Public Safety operations, CTIA agrees with the Joint Commenters that all affected parties should utilize and continue to improve upon the best practices that have been developed to help address incidents of interference in the 800 MHz band. CTIA agrees that reliance on best practices is essential due to the fact that "implementing this or any other band plan will take time, and problems must be addressed in the interim."²⁶ CTIA believes that the Commission should work to educate Public Safety users on solutions and practices identified in the Best Practices Guide and on the limitations of the handset and network designs they use today. Given the successful track record of good faith case-by-case mitigation, the Commission should maintain and encourage joint efforts by Public Safety and the industry to resolve interference problems.

²⁵ *Joint Comments* at 17.

²⁶ *Id.* at 22-23.

V. Conclusion

For the reasons set forth in its original Comments, Reply Comments, and these Further Comments, CTIA respectfully requests that the Commission adopt CTIA's proposals to improve Public Safety communications by mitigating interference in the 800 MHz band and by efficient use of Public Safety spectrum. The approaches advocated by CTIA and others in the record in this proceeding offer a far better solution to the issues posed in this proceeding than the Joint Commenters' Plan.

Respectfully submitted,

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